DATABASES

From Sea to Shining Sea

When it comes to protecting rare species and habitats, biologists say the more data they have, the better. This week a conservation group boosted that cause by releasing a 25-year trove of field data on the plants and animals of the United States and Canada. The NatureServe database* holds information on over 50,000 species, from humpback whale to eastern hemlock, including endangered status, distribution, life history, and references. "It's more complete than just about any other database of North American and Hawaiian species I'm aware of," says ecologist Bruce Stein of the Association for Biodiversity Information, a spin-off of The Nature Conservancy. Stein expects users will range from ecologists to land managers to students who want to know, say, which fish are native to their state.

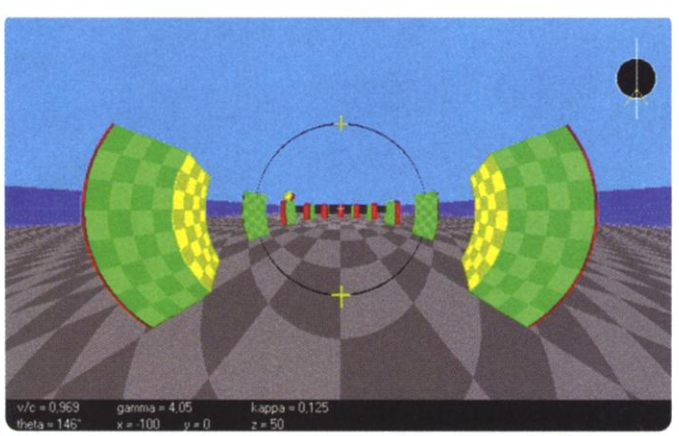
NatureServe is also billed as the first-ever database on North American ecological communities—some 5000 types. This fine-grained information describes such rare habitats as a kind of longleaf pine forest found only in South Carolina. Among other plans, Stein says county and watershed-level species maps will be added in the coming year.

* **www.natureserve.org**

RESOURCES

Relatively Speaking

According to Einstein's theory of relativity, an interstellar voyager traveling at nearly the speed of light ages more slowly than the twin left behind on Earth. It also follows that the mass of a galaxy can bend a light ray, and whirling pairs of black holes ripple the fabric of space-time like a flag flapping in the wind. Confused? You're not alone. Nearly a century after Einstein published his first paper on the subject, even physicists still struggle to understand the implications of relativity.



A stone circle at light speed.

CREDITS: (BOTTOM) N. DRAGON/UNIV. OF HANNOVER AND N. MOKROS/UNIV. OF BREMEN

NETWATCH

edited by JOCELYN KAISER

A site called Relativity on the World Wide Web* at the University of Washington's math department shines a little light on the dark corners of this challenging topic. For the curious novice, there is a collection of links to "equation-free" explanations of Einstein's theory by expert relativists and science fiction writers. For more detail, click on an online tutorial or download a set of lecture notes from graduate-level physics classes. Scattered throughout are links to visualizations that invite Internauts to watch two black holes merge, take a speed-of-light flight through a Stonehenge-like circle, or fall into a black hole.

* **www.math.washington.edu/~hillman/relativity.html**

EDUCATION

Playing at Scientific Literacy

Want to know how your child stacks up against the global competition in algebra, or what life science facts an 8th-grader should know? Then check out the Internet Learning Network,* a free site that offers quizzes based on questions from the Third International Mathematics and Science Study (TIMSS). It's sponsored by the Council on Competitiveness, in response to the poor showing of American high school seniors in general science literacy on the widely cited test (*Science*, 27 February 1998, p. 1297). The site offers tests jazzed up with Shockwave animations that link to maps showing scores from other countries. Over 200,000 people have visited since March, says project director Marshall Berman, an administrator on loan from Sandia National Lab. "I was amazed that so many kids would log on when no one makes them," he says.

* **www.getsmarter.org**

NET NEWS

Latin American Connection

Chilean scientists gathered in Santiago last week to mark the first high-speed research Internet links between the United States and a Latin American country. The Internet2 tie is one of several high-performance links for research and education paving the way for applications such as distance education and astronomy collaborations.

The new satellite link will give Chilean universities a 32-megabits-per-second (Mbps) link to the U.S. research network Internet2, which is about 20 times faster than a T1 line. By next March, a link to the Chilean telescopes should enable remote control of the new Gemini South from the United States—as well as faster image transmission from other observatories. Also opening this month is a 155-Mbps link between Internet2 and Mexican universities. And later this fall, Internet2 is expected to reach Brazil, Venezuela, and Argentina—where it will ship northward the first data from a new U.S.-supported cosmic ray observatory.

Send Internet news and great Web site suggestions to netwatch@aaas.org